

methyalmalonyl CoA mutase genes mutA and mutB from either *Propionibacterium shermanii* or *Streptomyces cinnamonensis*, and  
a *Propionibacterium shermanii* epimerase gene,  
wherein said genes produce enzymes capable of making S-methyalmalonyl CoA required for biosynthesis of a polyketide produced by a modular polyketide synthase (PKS) produced by a PKS gene or genes in said host cell,  
said PKS gene or genes contained in a vector that replicates extrachromosomally or is integrated into chromosomal DNA,  
wherein said host cell, in the absence of said expression vectors, is unable to make said polyketide due to lacking all or a part of a biosynthetic pathway required to produce S-methyalmalonyl CoA.

24. (Twice Amended) An *E. coli* host cell that expresses  
methyalmalonyl CoA mutase genes mutA and mutB from either *Propionibacterium shermanii* or *Streptomyces cinnamonensis*, and  
a *Propionibacterium shermanii* epimerase gene,  
wherein said mutase and epimerase genes produce enzymes capable of making S-methyalmalonyl CoA, and  
said host cell further expresses a modular polyketide synthase (PKS) gene or genes,  
said PKS gene or genes contained in a vector that replicates extrachromosomally or is integrated into chromosomal DNA.

28. (Amended) The host cell of Claim 1, wherein said methyalmalonyl CoA mutase genes are *Propionibacterium shermanii* methyalmalonyl CoA mutase genes mutA and mutB.

29. (Amended) The host cell of Claim 1, wherein said methyalmalonyl CoA mutase genes are *Streptomyces cinnamonensis* methyalmalonyl CoA mutase genes mutA and mutB.

30. (Amended) The host cell of Claim 1, wherein one or more of said genes is under control of a promoter from an *E. coli* gene.

31. (Amended) The host cell of Claim 1, wherein said PKS is 6-deoxyerythronolide B synthase.

32. (Amended) The host cell of Claim 17, wherein said methylmalonyl CoA mutase genes are *Propionibacterium shermanii* methylmalonyl CoA mutase genes mutA and mutB.

33. (Amended) The host cell of Claim 17, wherein said methylmalonyl CoA mutase genes are *Streptomyces cinnamonensis* methylmalonyl CoA mutase genes mutA and mutB.

34. (Amended) The host cell of Claim 17, wherein one or more of said genes is under control of a promoter from an *E. coli* gene.

35. (Amended) The host cell of Claim 17, wherein said PKS is 6-deoxyerythronolide B synthase.

36. (Amended) The host cell of Claim 24, wherein said methylmalonyl CoA mutase genes are *Propionibacterium shermanii* methylmalonyl CoA mutase genes mutA and mutB.

37. (Amended) The host cell of Claim 24, wherein said methylmalonyl CoA mutase genes are *Streptomyces cinnamonensis* methylmalonyl CoA mutase genes mutA and mutB.

38. (Amended) The host cell of Claim 24, wherein one or more of said genes is under control of a promoter from an *E. coli* gene.

39. (Amended) The host cell of Claim 24, wherein said PKS is 6-deoxyerythronolide B synthase.

Please cancel claim 40 without prejudice or disclaimer.

**In the Drawings:**

Please add attached Figures 2-9 after Figure 1 on the last page of the present application.